

Jkg=Weight of the meteorograph used including accessories (basket, cords, parachute, and the like), in kilograms.

Akm=Distance of the starting place from the landing place in kilometers.

Ad=Direction from the landing place to the starting place (given in degrees as in (d)).

(b) Additional observations for part B. Therein belong besides the above-named data under (a) 1 and 2, primarily data on the wind at natural levels.

(c) Cloud observations from such stations which have provided no measurements for group A or B. The data proceed in the same form as was described under (a) 1 and 2.

(d) Observations at mountain stations. These observations are set off by the symbol M before the name of the station. They give pressure (reduced to standard gravity and 0° C.), temperature, and relative humidity; thereafter data on wind and clouds as explained under (a) 1 and 2.

The following abbreviations are used for the kinds of clouds:

Ci=Cirrus.	Ac=Alto cumulus.
As=Altostratus.	Sc=Stratocumulus.
St=Stratus.	Cb=Cumulonimbus.
Ns=Nimbostratus.	Ce=Cirrocumulus.
Cs=Cirrostratus.	Cu=Cumulus.

The star (*) before the name of the place is used in the meaning above-mentioned (height instead of geopotential).

There follow now examples of the data in part C.

(a) Dallas 1351 158/2; 1 Ci 315/5, 1 Ac 315 (4200); Akg 0.92; Afa 0.6; Jty Fergusson; Jkg 0.2; Akm 106; Ad 65

Means: Observation at Dallas at 13:51: Wind at the surface from direction 158, velocity 2m/sec; 1/10 Cirrus from direction 315, angular velocity 5, 1/10 altocumulus from direction 315, cloud height 4,200 gdm. The weight of the balloon used was 0.92 kg; the free lift 0.6 kg; the instrument of the Fergusson type weighed 0.2 kg; the starting place was 106 km distant from the landing place and lay in direction 65° from it.

(b) Blue Hill 1240 201-801: 290/14; 801-1524: 300/16; 1524-2582: 290/12; 3200: 280/22; 1 Ac 280/10 (4000), Sc (1150)

Means: Observation at Blue Hill at 12:40: Wind at level from 201 to 801 gdm from direction 290° at 14 m/sec; in the level from 801 to 1,524 gdm from direction 300° at 16 m/sec; in the level from 1,524 to 2,582 gdm from direction 290° at 12 m/sec; wind in 3,200 gdm from direction 280° at 22 m/sec; 1/10 altocumulus coming from direction 280°, angular velocity 10, height of the altocumulus 4,000 gdm, stratocumulus lie at 1,150 gdm.

(c) Aviano 1300 7 Ac -/3, Cu 270 (900)

Means: Observation at Aviano at 13:00: 7/10 altocumulus, direction not known, angular velocity 3, cumulus from direction 270 blowing at 900 gdm height.

(d) M Obir 0600 796.7 74.4 73; 2 Cc 270, Sc 270

Means: Observation at the mountain station Obir at 6:00: pressure: 796.7 mb, temperature 74.4°, relative humidity 73 percent; 2/10 cirrocumulus coming from direction 270°, stratocumulus likewise from 270°.

In this publication the following symbols are employed:

P=Pressure in millibars (mb).

T=Temperature in degrees of the tercentesimal scale (temperature in centesimal degrees plus 270° minus 200°).

U=Relative humidity in percent.

Geopotential in geodynamic meters.

d=Wind direction in 360°.

v=Wind velocity in meters/second (m/sec).

G=Time in mean Greenwich time (M. G. T.).

Cloud-drift direction in 360°, as wind direction, cloud-drift velocity in angular velocity (1,000 v/h).

Weight in kilograms.

Distance in kilometers.

The arrangement of the individual stations proceeds according to regions, as below:

Region A=North and Central America.

Region B=South America.

Region C=Europe, North Africa, Siberia.

Region D=India and East Africa.

Region E=West and South Africa.

Region F=Australia and Oceania.

Region J=Japan and China.

Within each region, the stations lying farthest north always begin at the same north latitude, the station lying farther west comes first.

An index of all contributing stations with coordinates makes up the conclusion of the 1932 annual of this publication.

Special comment on the sounding balloon observations made in the United States during this period is in order. Sounding balloon observations were not made on each one of the international days but only on the days as shown in the table below. It should be emphasized that the figures in the third column represent the number of sounding balloons released and not the number of instruments returned.

Day	Number of balloons released	Day	Number of balloons released	Day	Number of balloons released
<i>1932</i>		<i>1932—Contd.</i>		<i>1933—Contd.</i>	
Aug. 10.....	3	Dec. 15.....	6	Apr. 28.....	3
Aug. 11.....	6	Dec. 28.....	3	Apr. 27.....	6
Aug. 24.....	3	Dec. 29.....	6	May 10.....	3
Aug. 25.....	6			May 11.....	6
Sept. 14.....	3	<i>1933</i>		May 24.....	3
Sept. 15.....	6	Jan. 11.....	3	May 25.....	6
Sept. 17.....	1	Jan. 12.....	6	June 7.....	3
Sept. 28.....	3	Jan. 25.....	3	June 8.....	6
Sept. 29.....	6	Jan. 26.....	6	June 21.....	3
Oct. 5.....	1	Feb. 8.....	3	June 22.....	6
Oct. 12.....	3	Feb. 9.....	6	July 12.....	3
Oct. 13.....	6	Feb. 22.....	3	July 13.....	6
Oct. 26.....	3	Feb. 23.....	6	July 26.....	3
Oct. 27.....	6	Mar. 8.....	3	July 27.....	6
Nov. 9.....	3	Mar. 9.....	6	Aug. 9.....	3
Nov. 10.....	6	Mar. 22.....	2	Aug. 10.....	6
Nov. 23.....	3	Mar. 23.....	5	Aug. 23.....	3
Nov. 24.....	6	Apr. 12.....	3	Aug. 24.....	6
Dec. 14.....	3	Apr. 13.....	6		

In all previous sounding balloon campaigns made in the United States by the Weather Bureau the detailed results of the observations have been published in a Weather Bureau publication. The sounding balloon observations of these 2 years in the United States make an exception as the detailed results are available only in the publication here being reviewed.—*Richmond T. Zoch.*

BIBLIOGRAPHY

[RICHMOND T. ZOCH, in Charge of Library]

By AMY D. PUTNAM

RECENT ADDITIONS

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SOLAR OBSERVATIONS

NOTE ON THE DETERMINATION OF THE TRANSMISSION OF COLOR SCREENS EMPLOYED IN SOLAR RADIATION INTENSITY MEASUREMENTS FOR THE COMPUTATION OF ATMOSPHERIC TURBIDITY FROM WHICH THE WATER VAPOR CONTENT OF THE ATMOSPHERE IS DETERMINED.

By H. H. KIMBALL, Research Associate, Harvard University

Ångström, and also Feussner, have called attention to the fact that different samples of the Schott-glass filters OG₁ and RG₂ vary somewhat among samples of the same color. The cut-off curve in the shorter wavelength end

of the spectrum is very steep, and the wave lengths between which it occurs vary somewhat with temperature as well as with the individual screens examined. Ångström advises that this cut-off curve should be determined for each screen employed, as this would help to determine the transmission of the screen as a whole.

So far as I am aware, this has not generally been done. After Hoelper wrote me that American atmospheric turbidity determinations did not seem to be in accord with European determinations, an attempt was made to determine the transmission of screens that have been